

Notice of Allowability

Application No.

10/748,964

Examiner

Albert W. Paladini

Applicant(s)

WANG ET AL.

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to application filed on 12/30/03.
2. ☒ The allowed claim(s) is/are 1-42.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 12/30/03
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee. In the specification.

On page 1, paragraph 1, line 4, after "filed", insert –12/30/03--.

On page 1, paragraph 1, line 5, after "No.", insert –10/748,820--.

On page 1, paragraph 1, line 9, after "filed", insert –12/30/03--.

On page 1, paragraph 1, line 9, after "No.", insert –10/749,078--.

On page 1, paragraph 1, line 13, after "filed", insert –12/30/03--.

On page 1, paragraph 1, line 14, after "No.", insert –10/748,022--.

On page 1, paragraph 1, line 17, after "filed", insert –12/30/03--.

On page 1, paragraph 1, line 18, after "No.", insert –10/748,019--.

On page 2, paragraph 1, line 22, after "filed", insert –12/30/03--.

On page 2, paragraph 1, line 22, after "No.", insert –10/749,039--.

On page 2, paragraph 1, line 26, after "filed", insert –12/30/03--.

On page 2, paragraph 1, line 26, after "No.", insert –10/748,483--.

On page 2, paragraph 1, line 31, after "filed", insert –12/30/03--.

On page 2, paragraph 1, line 31, after "No.", insert –10/749,026--.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Lester Gehman on 9/26/06.

Reasons for Allowance

1. The following is an examiner's statement of reasons for allowance: None of the references cited or the art searched disclose or teach alone or in combination the method and system for integrating a plurality of subcircuit grids in a simulation environment which entails obtaining a particular granularity subcircuit layer, and interconnecting nodes of the subcircuit layer using a constraint based search process, where the application of the constraint based search process to the subcircuit layer configuration is described in detail on pages 12 and 13 of the specification.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Relevant Prior Art

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sauvan (3688278) discloses a data processing apparatus arranged to perform a method for the search, simultaneously in several networks, for a set of optimum component trajectories respecting constraints of inter-dependence of these networks, these trajectories connecting in each network a starting point node and a target point node. The invention also consists in data processing apparatus for carrying out a method for the simultaneous search in several networks for certain trajectories, called optimum component trajectories, respecting inter-

dependence constraints of these networks, these trajectories connecting in each network a starting point node and a target point node.

Grodstein (5657239) discloses an algorithm for static timing verification is a depth-first search (DFS) of a circuit starting at each signal guaranteed on a clock edge, where each node is labeled with the currently best-locally-known worst-case timing information. After all nodes have been labeled, a second pass examines all timing constraints to tell the designer whether the circuit as a whole meets its timing constraints.

Chang (6412101) discloses a simultaneous path optimization system, which is designed to receive or obtain a description, or netlist, of an electrical network. The netlist indicates a source node, a plurality of sink nodes, a plurality of electrical branches connecting the source node with each the sink node, a plurality of resistances associated respectively with the branches, a plurality of capacitances associated respectively with the branches, and a plurality of timing constraints associated respectively with the branches. Each the timing constraint represents a maximum propagation time delay between the source and a respective one of the sinks.

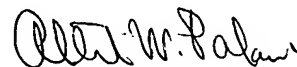
Sasagawa (6675155) discloses an arrangement optimization problem processing method and an arrangement optimization problem processing apparatus as well as a computer-readable recording medium on which an arrangement optimization problem processing program is recorded, suitable for use, for example, to process a circuit arrangement optimization problem for arranging circuits in an optimum condition on a large scale integrated circuit (LSI), more generally a node arrangement optimization problem (or element arrangement optimization problem) for arranging a plurality of nodes (or elements) in an optimum condition in a two- or more-dimensional space, where certain constraints are considered.

Rosenberg (7010471) discloses a network design apparatus that interconnects a plurality of n nodes by a plurality of links subject to connectivity constraints, the apparatus comprising: a seed generator for computing a near-optimal design for a set of clusters, wherein said computing step is performed by branch-and-bound optimization algorithm and a binary search tree; and an assembler for determining a near-optimal design for the n nodes, by combining the near-optimal designs for the clusters to minimize total number of the links; wherein said determining step is performed by dynamic programming optimization algorithm and said connectivity constraints comprise survivability constraint, diameter constraint and node degree constraint.

3. Any inquiry concerning this communication or earlier communication from the examiner should be direct to Albert W. Paladini whose telephone number is (571) 272-3748. The examiner can normally be reached from 7:00 to 3:00 PM on Monday, Tuesday, Thursday, and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Leo P. Picard, can be reached on (571) 272-3749. The official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Albert W. Paladini
Primary Examiner
Art Unit 2125

September 26, 2006